



## Design Research for Change

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The cover features a large yellow triangle pointing upwards, which is filled with a pattern of fine, concentric, curved lines. To the left of the triangle, there are several vertical, slightly curved lines. The overall design is minimalist and modern.

# DESIGN RESEARCH FOR CHANGE

Paul A. Rodgers (Editor)





### Patricia Belford

University of Ulster

01.04.2007 - 28.03.2008

This project builds on a collaborative project 'Girli Concrete' between Patricia Belford, Senior Research Fellow and Ruth Morrow, Professor of Architecture, both based at the University of Ulster. Girli Concrete brings together concrete and textile technologies, testing ideas of concrete as textile and textile as structure. Girli Concrete aims to create innovative 'soft' interior products, challenging the perception of textiles as only the 'dressing' to structure and instead integrate textile technologies into the production of wall panels. Girli Concrete is borne out of a larger drive to transform traditionally 'hard' building products, defined by technical performance only, into products that address both technical and human performance. Girli Concrete applies creative and social thinking to traditionally technical building products and in so doing transforms a low tech, low cost material into highly tactile, aesthetic and high value products.

Girli Concrete has progressed significantly in consultation with a concrete manufacturer. The 'Woven Concrete' project has developed out of and will support the continued development of Girli Concrete through the development of specialised woven fabrics specifically designed to be imbedded into concrete panels. To date Girli

Concrete project has used a number of ready-made woven fabrics but we now wish to design and develop weaves using the expertise of a fellow research assistant who specialises in the area. At the same time the project will be observed by an inhouse textiles technologist who will advise on the physical characteristics of the resultant samples.

The project will investigate variations in weave structures using combinations of metal and natural fibres; the effects of erosive and controlled distortion techniques and the properties of the resultant fabrics and is subdivided into 5 stages: (1) Yarn trials - This stage will involve the production of samples using a combination of yarns; (2) Trialling Resultant Weaves - This stage involves testing the samples by placing into formwork and pouring concrete; (3) Trial Manufacture of Weaves - Manufacture of selected weaves with the addition of devoré and controlled distortion techniques; (4) Testing and Selection of Resultant Weaves; (5) Manufacture of full size samples - The most successful of the samples tested in Stage 4 will be manufactured to a size that suits the scale of the Girli Concrete panels.

## DESIGN RESEARCH FOR CHANGE

### SHOWCASE CATALOGUE

Hall 12, Stand 12.5

London Design Fair

20<sup>th</sup> – 23<sup>rd</sup> September 2018

Design Research for Change is a showcase of 67 Arts and Humanities Research Council (AHRC) funded Design research projects. The showcase illustrates the breadth and depth of Design research in the UK and celebrates the amazing work of talented researchers working on complex challenges. The Design Research for Change Showcase is one part of a much larger AHRC-funded Design Leadership Fellowship, which aims to enhance the quantity and quality of Design-led research in the UK. The Design Leadership Fellow, Professor Paul Rodgers of Imagination, Lancaster University, also aims to strengthen the research capacity of the next generation of Design researchers (ECRs) and act as an ambassador for Design research across all sectors of UK society. Ultimately, the ambition for the highly innovative, thought-provoking and creative Design research presented in the Showcase and in this accompanying catalogue will be to see it make real and positive social change in the UK.



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